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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/787,396

02/26/2004

Bernard Simon

81091780

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28866 7590 04/19/2007

MACMILLAN, SOBANSKI & TODD, LLC  
ONE MARITIME PLAZA - FIFTH FLOOR  
720 WATER STREET  
TOLEDO, OH 43604

EXAMINER

KOEHLER, CHRISTOPHER M

ART UNIT

PAPER NUMBER

3726

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/787,396

**Applicant(s)**

SIMON ET AL.

**Examiner**

Christopher M. Koehler

**Art Unit**

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/23/2007 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 9 recites the limitation "said third short pinion" in line 18. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination the examiner has interpreted "said third short pinion" to actually refer to the forementioned "second short pinion".

### ***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 3726

6. Claims 1-6, 8, 9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (US Patent No. 3,527,121) in view of Miller (US Patent No. 4,003,273).

Claim 1:

Moore teaches a method of producing a gearset, comprising the steps of producing a first member (24, 36) having a first surface (24), and a second surface (36) axially spaced from the first surface, forming a first set of pairs of axially aligned, angularly spaced holes (44, 46) in the first surface and second surface, placing in each of the pairs of holes of the first set (44, 46), a short pinion shaft (58) having a short pinion (54) supported thereon, forming a second set of axial, angularly spaced holes (42) in the first surface (24), placing a long pinion shaft (48) in each hole of the second set (42) and a long pinion (52) on each long pinion shaft, forming a second member (22) having a third set of holes (40), each hole aligned with a hole of the second set (42), placing the second member (22) such that each long pinion shaft (48) fits in a hole of the second set (22) and securing the first (24, 36) and second members (22) mutually.

Moore does not explicitly teach engaging gear teeth on each long pinion with gear teeth on two short pinions located angularly between each long pinion.

Miller teaches engaging gear teeth on each long pinion (P2, figure 4) with gear teeth on two short pinions (P1) located angularly between each long pinion, wherein each short pinion is located at a first radial distance from the axis.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the gear arrangement of Miller to the gearset of Moore since Miller

Art Unit: 3726

teaches that the gear arrangement of figure 4 provides an additional reduction ratio compared to the arrangement shown in figure 2 of Miller which has the same arrangement shown in Moore (col. 5, lines 66-68, Miller).

Claim 9 (as best understood):

Moore teaches a method for producing a gearset, comprising the steps of producing the first member (24) having a first set of axial directed, angularly spaced holes (44), and a second set of axially directed, angularly spaced holes (42), a third set of axially directed, angularly spaced holes (46), each hole of the third set aligned with a hole of the first set (44) and spaced axially therefrom, and an axial pocket (see figure 2, outlines showing pockets) aligned with each hole of the second set (42), placing in the aligned holes of the first set (44) and third set (46), a short pinion shaft (58) having a short pinion (54) supported thereon, placing a long pinion shaft (48) in each hole of the second set (42), inserting axially through each pocket a long pinion (52) onto each long pinion shaft (48), forming a second member (22) having a fourth set of holes (40), each hole aligned with a hole of the second set (42), placing the second member (22) such that each long pinion shaft (48) fits in a hole of the fourth set (40), and securing the first (24, 36) and second members (22) mutually.

Moore does not explicitly teach engaging gear teeth on a first long pinion with gear teeth on a first short pinion and a second short pinion, the first short pinion engaged with a second long pinion and the second short pinion engaged with a third long pinion.

Art Unit: 3726

Miller teaches engaging gear teeth on a first long pinion (P2) with gear teeth on a first short pinion (P1) and a second short pinion, the first short pinion engaged with a second long pinion and the second short pinion engaged with a third long pinion, each short pinion being located at a first radial distance from the axis (figure 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the gear arrangement of Miller to the gearset of Moore since Miller teaches that the gear arrangement of figure 4 provides an additional reduction ratio compared to the arrangement shown in figure 2 of Miller which has the same arrangement shown in Moore (col. 5, lines 66-68, Miller).

Claims 2-6, 8 and 11-16:

These steps are inherently provided for during the assembly of the gearset of Moore.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-6, 8-9 and 11-16 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Koehler whose telephone number is (571) 272-3560. The examiner can normally be reached on Mon.-Fri. 7:30A-4:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMK



DAVID P. BRYANT  
SUPERVISORY PATENT EXAMINER

4/16/07